

NOVEMBER/DECEMBER 2025

**FMB52/CMB52 — AGRICULTURAL AND
ENVIRONMENTAL MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define soil structure.
2. List out the microflora in soil?
3. What is biopesticides?
4. What are organic decomposers?
5. Define commensalism.
6. Name any two plant diseases caused by fungi.
7. What is air microbiology?
8. List out the two methods of air sanitation
9. What is potable water?
10. Name any two waterborne diseases.



SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Explain the physical properties of soil.

Or

- (b) Classify the different types of soil.

12. (a) Illustrate the role of microorganisms in the carbon cycle.

Or

- (b) Explain about vermicompost production.

13. (a) Summarize Tobacco Mosaic Virus and its symptoms on plants.

Or

- (b) Elaborate notes on phyllosphere.

14. (a) Explain the air sampling techniques.

Or

- (b) Summarize about the sources of Microorganisms in air.

15. (a) Explain the microbial assessment of water quality.

Or

- (b) List out the water-borne diseases and their causative agents.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Explain the chemical properties of soil and their importance in microbial growth.

17. Compare and contrast about the aerobic and anaerobic composting.

18. Classify the different types of microbial interactions in plants.

19. Discuss the airborne diseases in detail.

20. Elaborate notes on municipal wastewater treatment process.